QUEUING CLOSED LOOP CONGESTION MECHANISM

ABSTRACT OF THE DISCLOSURE

An exemplary queuing congestion mechanism and method are disclosed that provide congestion management at an egress port of a packet switch. The queuing congestion mechanism includes at least a first, a second and a third queue, which each have an input, an output, and a capacity. Each queue is operable to receive packets of information of a designated type, such as a service category type, at its input that are destined to be communicated to the egress port through its output. The queuing congestion mechanism further includes a scheduler and a queue shaper. The scheduler, which may be implemented as a strict scheduler, is operable to receive the packets of information from the output of the queues and to communicate the packets of information to the egress port of the packet switch based on a schedule. The queue shaper is operable to set an adjustable rate in which the packets of information of the third queue are communicated to the scheduler, and the adjustable rate is controlled by a loading of the capacity of the second queue. The queuing congestion mechanism may include a discard policy that is enabled for one or more of the queues and that is based on the loading of the capacity of one of the other queues.